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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,772	07/24/2001	Stephen Cutler	CUTLP0102US	3927
7590 01/06/2009				
M. David Galin Renner, Otto, Boisselle & Sklar, LLP Nineteenth Floor 1621 Euclid Avenue Cleveland, OH 44115			EXAMINER GRAHAM, CLEMENT B	
			ART UNIT 3696	PAPER NUMBER
			MAIL DATE 01/06/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

09/911,772

**Applicant(s)**

STEPHEN CUTLER

**Examiner**

Clement B. Graham

**Art Unit**

3696

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 2-14, 16-31, 33-41, 54-64, 66-77, 79-83, 85-89, 92-93, 95-107, 109-142, 126-134, 136-145, 146-157, 159-170, 172-176, 178-182, 185-209 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) See Continuation Sheet is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-843)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims rejected are 2-14, 16-31, 33-41, 54-64, 66-77, 79-83, 85-89, 92, 93, 95-107, 109-157, 159-170, 172-176, 178-182 and 185-209.

**DETAILED ACTION**  
***Information Disclosure Statement***

1. The information disclosure statement filed on 5/22/08, 10/30/08 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 109-142, 126-134, 136-145, 146-157, 159-170, 172-176, 178-182, 185-209 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 109-142, 126-134, 136-145, 146-157, 159-170, 172-176, 178-182, 185-209 recite a process comprising: receiving, data, updating and summing. Based on Supreme Court precedent, a proper process must be tied to another statutory class or transform underlying subject matter to a different state or thing (*Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876)). Since neither of these requirements is met by the claim, the method is not considered a patent eligible process under 35 U.S.C. 101. To qualify as a statutory process, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus that accomplished the method steps or positively

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reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

Claims 109-142, 126-134, 136-145, 146-157, 159-170, 172-176, 178-182, 185-209 are directed towards a computer based system comprising steps modules. Modules and steps can be interpreted as consisting of software per se, and software is not a patentable subject matter because it is not fall under a statutory class as being a process, machine, manufacture, or composition of matter.

4. Claims 2-14, 16-31, 33-41, 54-64, 66-77, 79-83, 85-89, 92-93, 95-107, 109-142, 126-134, 136-145, 146-157, 159-170, 172-176, 178-182, 185-209 remained pending.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-14, 16-31, 33-41, 54-64, 66-77, 79-83, 85-89, 92-93, 95-107, 109-142, 126-134, 136-145, 146-157, 159-170, 172-176, 178-182, 185-209, are rejected under 35 U.S.C. 103(a) as being unpatentable over Anaya et al (Hereinafter Anaya U.S Patent 7, 082, 410 in view of Higgins U.S Patent 5, 270, 922).

As per claims 2-14, Anaya discloses a method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks the method comprising the steps of:  
receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask (see fig: 4, 6, 37).

Anaya fail to explicitly teach and analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security.(see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security taught by Higgins in order to collect and display and distributing inreal time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 16-31, Anaya discloses a method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks(see Fig: 4 column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56) the method comprising the steps of: receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask

time, an ask volume, a security identifier and a market maker identifier for each ask (see fig: 4, 6, 37)

Anaya fail to explicitly teach analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining whether a bid placed by any of the market makers has a value higher than, the same as or lower than the previous bid placed by the same market maker and determining whether an ask placed by any of the market makers has a value higher than, the same as or lower than the previous ask placed by the same market maker.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining whether a bid placed by any of the market makers has a value higher than, the same as or lower than the previous bid placed by the same market maker and determining whether an ask placed by any of the market makers has a value higher than, the same as or lower than the previous ask placed by the same market maker. (see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining whether a bid placed by any of the market makers has a value higher than, the same as or lower than the previous bid placed by the same market maker and determining whether an ask placed by any of the market makers has a value higher than, the same as or lower than the previous ask placed by the same market maker taught by Higgins in order to collect and display and distributing inreal time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 33-41, Anaya discloses a method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the method comprising the steps of receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask (see fig: 4, 6, 37 and see column 3 lines 34-67 and column 4 lines 1-67 and column 8 lines 47-67 and column 9 lines 1-8).

Anaya fail to explicitly teach analyzing the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for a selected market maker and updated based on the updated data stream, wherein deriving the statistic includes identifying each security from a selected set of securities for which the selected market maker has at least one of an active bid or an active ask, and for the selected market maker generating a list of the identified securities along with an indication of the market maker's bid volume and ask volume for the identified securities.

However Higgins discloses analyzing the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for a selected market maker and updated based on the updated data stream, wherein deriving the statistic includes identifying each security from a selected set of securities for which the selected market maker has at least one of an active bid or an active ask, and for the selected market maker generating a list of the identified securities along with an indication of the market maker's bid volume and ask volume for the identified securities. (see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyzing the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for a selected market maker and updated based on the updated data stream, wherein deriving the statistic includes identifying each security from a selected set of securities for which the selected



market maker has at least one of an active bid or an active ask, and for the selected market maker generating a list of the identified securities along with an indication of the market maker's bid volume and ask volume for the identified securities taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 43-52, Anaya discloses a method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the method comprising the steps of: receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask (see fig: 4 6, 36 and see column 3 lines 34-67 and column 4 lines 1-67 and column 8 lines 47-67 and column 9 lines 1-8).

Anaya fail to explicitly teach analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining the combined bid volume and ask volume for each market maker for each selected security from the selected set of securities. However Higgins analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining the combined bid volume and ask volume for each market maker for each selected security from the selected set of securities. (see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary

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upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining the combined bid volume and ask volume for each market maker for each selected security from the selected set of securities taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 54-64, Anaya discloses a method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the method comprising the steps of:

receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask (see fig: 4, 6, 37 and see column 3 lines 34-67 and column 4 lines 1-67 and column 8 lines 47-67 and column 9 lines 1-8).

Anaya fail to explicitly teach analyzing the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each market maker and updated based on the updated data stream, wherein deriving the statistic includes for each market maker, summing the bid volume of each active bid of each market maker for a selected set of securities and summing the ask volume of each active ask of each market maker for a selected set of securities.

However Higgins analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining the combined bid volume and ask volume for each market maker for each selected security from the selected set of securities. (see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyzing the data stream to

derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each market maker and updated based on the updated data stream, wherein deriving the statistic includes for each market maker, summing the bid volume of each active bid of each market maker for a selected set of securities and summing the ask volume of each active ask of each market maker for a selected set of securities taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 66-77, Anaya discloses method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place : bids and asks, the method comprising the steps of receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask (see fig: 4 , 6, 37 and see column 3 lines 34-67 and column 4 lines 1-67 and column 8 lines 47--67 and column 9 lines 1-8).

Anaya fail to explicitly teach analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes for each selected security and over a specified time period, determining a bid persistence statistic and an ask persistence statistic for each market maker, the bid persistence statistic determined by calculating the approximate portion of the specked time period that the market maker has had one or more bids being equal to or higher than a level 1 bid for the security, and the ask persistence statistic determined by calculating the approximate portion of the specified time period that the market has had one or more asks being equal to or lower than a level 1 ask for the security.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data

stream, wherein deriving the statistic includes for each selected security and over a specified time period, determining a bid persistence statistic and an ask persistence statistic for each market maker, the bid persistence statistic determined by calculating the approximate portion of the specked time period that the market maker has had one or more bids being equal to or higher than a level 1 bid for the security, and the ask persistence statistic determined by calculating the approximate portion of the specified time period that the market has had one or more asks being equal to or lower than a level 1 ask for the security. (see column 7 lines 32-67 and column 9 lines 10-25 and column 10 lines 1-30 and column 6 lines 24-40 and column 4 lines 1-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes for each selected security and over a specified time period, determining a bid persistence statistic and an ask persistence statistic for each market maker, the bid persistence statistic determined by calculating the approximate portion of the specked time period that the market maker has had one or more bids being equal to or higher than a level 1 bid for the security, and the ask persistence statistic determined by calculating the approximate portion of the specified time period that the market has had one or more asks being equal to or lower than a level 1 ask for the security taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 79-83, Anaya discloses a method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the method comprising the steps of:  
receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each and dynamically

filtering the data stream, including for each selected security from a selected set of securities, discarding bids having a price lower than the last trade value minus a selected threshold percentage of the last trade value and discarding asks having a price higher than the last trade value plus the selected threshold percentage of the last trade value. (see Fig: 4 column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56).

As per claims 85-89, Anaya discloses a method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the method comprising the steps of:

receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask (see Fig: 4 column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56).

Anaya fail to explicitly teach analyzing the data stream for a selected set of securities from the plurality of :securities to derive a set of statistics indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream; and dynamically sorting a displayed order of the set of statistics based on a parameter selected by the user to reflect current market maker activity.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of :securities to derive a set of statistics indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream; and dynamically sorting a displayed order of the set of statistics based on a parameter selected by the user to reflect current market maker activity. .(see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyzing the data stream for a selected set of securities from the plurality of :securities to derive a set of statistics indicative of

temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream; and dynamically sorting a displayed order of the set of statistics based on a parameter selected by the user to reflect current market maker activity taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 92-93, Anaya discloses a method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the method comprising the steps of: receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask (see Fig: 4 , 6, 37 and column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56) grouping the bids by price to generate a series of bid groups, each bid price group but one containing bids of the same price for the bid price group, the remaining bid price group containing all bids having a price more than a specified number of price changes away from an inside bid price summing the volume of bids in each bid price group and summing the number of bids in each bid price group, displaying the total volume for each bid price group and the number of bids in -each bid price group, grouping the asks by price to generate a series of ask price groups, each ask price group but one containing asks of the same price for the ask price group, the remaining ask price groups containing all asks having a price more than a specified number of price changes away from an inside ask price summing the volume of asks in each ask price group and summing the number of asks in each ask price group; and displaying the total volume for each price group and the number of asks in each ask price group. (see Fig: 4 , 6, 37 and column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56).

Anaya fail to explicitly teach analyzing the data stream for a selected set of securities from the plurality of securities to derive a set of statistics indicative of temporary upward or downward

price pressure, the statistic derived for each selected security and updated based on the updated data stream.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of securities to derive a set of statistics indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream.(see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyzing the data stream for a selected set of securities from the plurality of securities to derive a set of statistics indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 95-107, Anaya discloses a system for tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising:

a receiver for receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier for and a market maker identifier for each ask (see Fig: 4 , 6, 37 and column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56).

Anaya fail to explicitly teach a process or executory logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security.

However Higgins discloses a process or executory logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security. (see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include a process or executory logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 109-124, Anaya discloses a system for tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising: a receiver for receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask see Fig: 4, 6, 37 and column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56).

Anaya fail to explicitly teach a processor for executing logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining whether a bid



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placed by any of the market makers has a value higher than, the same as or lower than the previous bid placed by the same market maker and determining whether an ask placed by any of the market makers has a value higher than the same as or lower than the previous ask placed by the same market maker.

However Higgins discloses a processor for executing logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining whether a bid placed by any of the market makers has a value higher than, the same as or lower than the previous bid placed by the same market maker and determining whether an ask placed by any of the market makers has a value higher than the same as or lower than the previous ask placed by the same market maker. . . (see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include a processor for executing logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining whether a bid placed by any of the market makers has a value higher than, the same as or lower than the previous bid placed by the same market maker and determining whether an ask placed by any of the market makers has a value higher than the same as or lower than the previous ask placed by the same market maker taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 126-134, Anaya discloses a system for tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising:  
a receiver for receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a

bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask (see fig: 4 , 6, 37 and see column 3 lines 34-67 and column 4 lines 1-67 and column 8 lines 47--67 and column 9 lines 1-8).

Anaya fail to explicitly teach a processor for executing logic to analyze the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for a selected market maker and updated based on the updated data stream, wherein deriving the statistic includes identifying each security from a selected set of securities for which the selected market maker has at least one of an active bid or an active ask, and for the selected market maker generating a list of the identified securities along with an indication of the market maker's bid volume and ask volume for the identified securities.

However Higgins discloses teach a processor for executing logic to analyze the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for a selected market maker and updated based on the updated data stream, wherein deriving the statistic includes identifying each security from a selected set of securities for which the selected market maker has at least one of an active bid or an active ask, and for the selected market maker generating a list of the identified securities along with an indication of the market maker's bid volume and ask volume for the identified securities. (see column 7 lines 32-67 and column 9 lines 10-25 and column 10 lines 1-30 and column 6 lines 24-40 and column 4 lines 1-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include a processor for executing logic to analyze the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for a selected market maker and updated based on the updated data stream, wherein deriving the statistic includes identifying each security from a selected set of securities for which the selected market maker has at least one of an active bid or an active ask, and for the selected market maker generating a list of the identified securities along with an indication of the market maker's bid volume and ask volume for the identified securities taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time

As per claims 136-145, Anaya discloses a system of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising:

a receiver for receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask (see Fig: 4, 6, 37 and column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56).

Anaya fail to explicitly teach a processor for executing logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining the combined bid volume and ask volume for each market maker for each selected security from the selected set of securities.

However Higgins discloses to explicitly teach a processor for executing logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining the combined bid volume and ask volume for each market maker for each selected security from the selected set of securities. (see column 7 lines 32-67 and column 9 lines 10-25 and column 10 lines 1-30 and column 6 lines 24-40 and column 4 lines 1-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include a processor for executing logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes determining the combined bid volume and ask volume for each market maker for each selected security from the selected set of securities taught by Higgins in order to collect

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and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 147-157, Anaya discloses a system for tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising a receiver for receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask (see Fig: 4, 6, 37 and column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56).

Anaya fail to explicitly teach a processor for executing logic to analyze the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each market maker and updated based on the updated data stream, wherein deriving the statistic includes for each market maker, summing the bid volume of each active bid of each market maker for a selected set of securities and summing the ask volume of each active ask of each market maker for a selected set of securities.

However Higgins discloses executing logic to analyze the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each market maker and updated based on the updated data stream, wherein deriving the statistic includes for each market maker, summing the bid volume of each active bid of each market maker for a selected set of securities and summing the ask volume of each active ask of each market maker for a selected set of securities. (see column 7 lines 32-67 and column 9 lines 10-25 and column 10 lines 1-30 and column 6 lines 24-40 and column 4 lines 1-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include executing logic to analyze the data stream to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each market maker and updated based on the updated data stream, wherein deriving

the statistic includes for each market maker, summing the bid volume of each active bid of each market maker for a selected set of securities and summing the ask volume of each active ask of each market maker for a selected set of securities taught by Higgins in order to collect and display and distributing in real time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 159-170, Anaya discloses a system of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising:  
a receiver for receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume(see Fig: 4 column 4 lines 37-42 and column 5 line 64 and column 6 line 15 and 15 and column 6 lines 39-42 and column 21 lines 55-56) a security identifier and a market maker identifier for each ask and a processor for executing logic to (see fig: 4, 6, 37).

Anaya fail to explicitly teach analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes for each selected security and over a specified time period, determining a bid persistence statistic and an ask persistence statistic for each market maker, the bid persistence statistic determined by calculating the approximate portion of the specified time period that the market maker has had one or more bids being equal to or higher than a level 1 bid for the security, and the ask persistence statistic determined by calculating the approximate portion of the specified time period that the market maker has had one or more asks being equal to or lower than a level 1 ask for the security.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated

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with each selected security and summing the volume of each active ask associated with each selected security.(see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyze the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes for each selected security and over a specified time period, determining a bid persistence statistic and an ask persistence statistic for each market maker, the bid persistence statistic determined by calculating the approximate portion of the specified time period that the market maker has had one or more bids being equal to or higher than a level 1 bid for the security, and the ask persistence statistic determined by calculating the approximate portion of the specified time period that the market maker has had one or more asks being equal to or lower than a level 1 ask for the security taught by Higgins in order to collect and display and distributing inreal time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 172-176, Anaya discloses a system for tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising:  
a receiver for receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask(see fig: 4, 6, 37).  
a processor for executing logic to dynamically filter the data stream and, for each selected security from a selected set of securities, the logic discards bids having a price lower than the last trade value minus a selected threshold percentage of the last trade value and discards asks having

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a price higher than the last trade value plus the selected threshold percentage of the last trade value.

As per claims 178-182, Anaya discloses a system for tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising:

a receiver for receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask(see fig: 4, 6, 37).

a display for displaying the set of statistics, the set of statistics being dynamically sorted based on a parameter selected by the user to reflect current market maker activity.(see Fig 4, column 18 lines 34-59 and column 22 lines66-column 23 line 2).

As per claims 185-186, Anaya discloses a system for tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising:

a receiver for receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask time, an ask volume, a security identifier and a market maker identifier for each ask(see fig: 4, 6, 37).

and the logic including code to:

group the bids by price to generate a series of bid groups, each bid price group but one containing bids of the same price for the bid price group, the remaining bid price group containing all bids having a price more than a specified number of price changes away from an inside bid price, sum the volume of bids in each bid price group and sum the number of bids in each bid price group, display the total volume for each bid price group and the number of bids in each bid price group on a display.(see Fig 4, column 18 lines 34-59 and column 22 lines66-

column 23 line 2) group the asks by price to generate a series of ask price groups, each ask price group but one containing asks of the same price for the ask price group, the remaining ask price groups containing all asks having a price more than a specified number of price changes away from an inside ask price, sum the volume of asks in each ask price group and summing the number of asks in each ask price group and display the total volume for each price group and the number of asks in each ask price group on the display. (see Fig 4, column 18 lines 34-59 and column 22 lines 66-column 23 line 2).

Anaya fail to explicitly teach a processor for executing logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a set of statistics indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security.(see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include a processor for executing logic to analyze the data stream for a selected set of securities from the plurality of securities to derive a set of statistics indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream taught by Higgins in order to collect and display and distributing inreal time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 187-197, Anaya discloses a method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the method comprising:



receiving a dynamically updated data stream containing level 1 data and level 2 data for the securities traded over the at least one exchange(see fig: 4, 6, 37).

Anaya fail to explicitly analyzing the data stream for a plurality of the securities to derive a statistic for each of the plurality of the securities, the statistic being a function of inter-related collective and coactive behavior of a plurality of market makers across the plurality of securities, and the statistic indicative of temporary upward or downward price pressure for the corresponding security.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security.(see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security taught by Higgins in order to collect and display and distributing inreal time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 198-207, Anaya discloses further comprising, on a security by security basis: grouping the bids by price to generate a series of bid groups, each bid price group but one containing bids of the same price for the bid price group, the remaining bid price group containing all bids having a price more than a specified number of price changes away from an inside bid price summing the volume of bids in each bid price group and summing the number of bids in each bid price group (see fig: 4, 6, 37) displaying the total volume for each bid price group and the number of bids in each bid price group;

grouping the asks by price to generate a series of ask price groups, each ask price group but one containing asks of the same price for the ask price group, the remaining ask price group containing all asks having a price more than a specified number of price changes away from an inside ask price See FIG 4, column 18 lines 34-59, and column 22 line 66-coumn 23 line 2) summing the volume of asks in each ask price group and summing the number of asks in each ask price group; and displaying the total volume for each price group and the number of asks in each ask price group.(See FIG 4, column 18 lines 34-59, and column 22 line 66-coumn 23 line 2)

As per claims 208, Anaya discloses a program embodied in computer readable medium to track activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:  
code that receives a dynamically updated data stream containing level 1 data and level 2 data for the securities traded over the at least one exchange(see fig: 4, 6, 37).

Anaya fail to explicitly teach code that analyzes the data stream for a plurality of the securities to derive a statistic for each of the plurality of the securities, the statistic being a function of inter\ related collective and coactive behavior of a plurality of market makers across the plurality of securities, and the statistic indicative of temporary upward or downward price pressure for the corresponding security.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security.(see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include code that analyzes the data stream for a plurality of the securities to derive a statistic for each of the plurality of the securities, the statistic being a function of inter related collective and coactive behavior of a plurality of market makers across the plurality of securities, and the statistic indicative of temporary upward or downward price pressure for the corresponding security taught by Higgins

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in order to collect and display and distributing inreal time information on current market activity in securities processing the information to quantify the extent of order and trading activity of customers in real time.

As per claims 209, Anaya discloses a system for tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, the system comprising:

a receiver for receiving a dynamically updated data stream containing level 1 data and level 2 data for the securities traded over the at least one exchange; (see fig: 4, 6, 37).

Anaya fail to explicitly teach a processor for executing logic to analyze the data stream for a plurality of the securities to derive a statistic for each of the plurality of the securities, the statistic being a function of inter-related collective and coactive behavior of a plurality of market makers across the plurality of securities, and the statistic indicative of temporary upward or downward price pressure for the corresponding security.

However Higgins discloses analyzing the data stream for a selected set of securities from the plurality of securities to derive a statistic indicative of temporary upward or downward price pressure, the statistic derived for each selected security and updated based on the updated data stream, wherein deriving the statistic includes summing the volume of each active bid associated with each selected security and summing the volume of each active ask associated with each selected security.(see column 1 lines 51-54 and column 5 lines 6-36 and column 6 line 7 and column 8 line 64 and column 9 line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Anaya to include a processor for executing logic to analyze the data stream for a plurality of the securities to derive a statistic for each of the plurality of the securities, the statistic being a function of inter-related collective and coactive behavior of a plurality of market makers across the plurality of securities, and the statistic indicative of temporary upward or downward price pressure for the corresponding security taught by Higgins in order to collect and display and distributing inreal time information on current market activity in securities

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processing the information to quantify the extent of order and trading activity of customers in real time.

### **Conclusion**

### **RESPONSE TO ARGUMENTS**

7. Applicant's arguments filed 2/21/08 has been fully considered but they are moot in view if new grounds of rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B. Graham whose telephone number is 571-272-6795. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dixon can be reached on (571) 272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Frantzy Poinvil/

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Primary Examiner, Art Unit 3696

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JAN 4, 2009